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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/527,114	03/08/2005	Coen Theodorus Hubertus Fransiscus Liedenbaum	NL 020820	9522

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PHILIPS INTELLECTUAL PROPERTY & STANDARDS  
P.O. BOX 3001  
BRIARCLIFF MANOR, NY 10510

EXAMINER
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RAABE, CHRISTOPHER M

ART UNIT	PAPER NUMBER
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2879

MAIL DATE	DELIVERY MODE
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10/04/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary**

Application No.

10/527,114

Applicant(s)

LIEDENBAUM, COEN  
THEODORUS HUBERTUS FRA

Examiner

Christopher M. Raabe

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 26 June 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### DETAILED ACTION

1. Applicant's submission, filed June 26, 2007, has been entered and acknowledged by the examiner.
2. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

### *Claim Rejections - 35 USC § 103*

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.
4. Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arnold et al. (USPN 2004/0036421).

With regard to claim 1,

Arnold et al. disclose in at least paragraphs 21-25,34 an electroluminescent device comprising at least one picture element, said at least one picture element comprising a plurality of electroluminescent sub-pixels capable of emitting light when subject to electric current, the sub-pixels each having a degradation lifetime and an emissive area (fig 5), characterized in that, for any pair of first and second sub-pixels in a picture element, the ratio between the first sub-pixel emissive area and the second sub-pixel emissive area is inversely proportional to the ratio between the degradation lifetime of said first sub-pixel and the degradation lifetime of the second sub-pixel. While Arnold et al. do not disclose relative sub-pixel emissive areas to

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depend solely on the respective degradation lifetimes, Arnold et al do teach this practice to provide benefit (improving the ability of the device to maintain color balance over its lifetime) which is independent of the other factors Arnold et al. utilize to determine relative sub-pixel size, and therefore would have been obvious to one of ordinary skill in the art at the time of the invention to utilize relative degradation lifetimes as the sole determining factor for relative sub-pixel size in order to simplify the process.

With regard to claim 2,

Arnold et al. disclose the device as claimed in claim 1, where any of said sub-pixel emissive areas comprises a plurality of discrete emissive area parts (fig 5).

With regard to claim 3,

Arnold et al. disclose the device as claimed in claim 1, where said ratio between the first sub-pixel emissive area ( $A_1$ ) and the second sub-pixel emissive area ( $A_2$ ) follows the relation:  $A_1/A_2 = (\gamma_2/\gamma_1) (\eta_2/\eta_1) (\alpha_1/\alpha_2)$  where  $\gamma$ ,  $\eta$  and  $\alpha$ , with index 1 representing the first sub-pixel and index 2 representing the second sub-pixel, are respective measurable material parameters, where  $\eta$  represents the efficiency of conversion of electric current to light,  $\gamma$  is a scaling factor depending on the efficiency, brightness and lifetime, and  $\alpha$  is, in units of total output light by the picture element, the fraction emitted by the respective sub-pixel.

With regard to claim 4,

Arnold et al. disclose the device as claimed in claim 1, where said at least one picture element comprises three sub-pixels, said sub-pixels being denoted R-, G- and B-sub-pixel,

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respectively, and where the relation between the areas  $A_R$ ,  $A_G$  and  $A_B$  of respective R-, G- and B-sub-pixels follows from the relation:  $(\gamma_R \eta_R A_R)/\alpha_R = (\gamma_G \eta_G A_G)/\alpha_G = (\gamma_B \eta_B A_B)/\alpha_B$ .

With regard to claim 5,

Arnold et al. disclose additionally in paragraph 1 the device as claimed in claim 1, where the sub-pixels comprise electroluminescent organic material.

With regard to claim 6,

Arnold et al. disclose additionally in paragraph 38 the device as claimed in claim 5, where the organic material includes electroluminescent polymer.

With regard to claim 7,

Arnold et al. disclose additionally in paragraph 75 the device as claimed in claim 5, where the organic material includes electroluminescent low molecular weight material.

With regard to claim 8,

Arnold et al. disclose the device as claimed in claim 1.

Arnold et al. do not disclose where the sub-pixels comprise electroluminescent inorganic material. However the use of inorganic electroluminescent material in a color light emitting display such as that of Arnold et al. was well known to those of ordinary skill in the art at the time of the invention, and the practice disclosed by Arnold et al. would benefit an inorganic device just as well as an organic device by improving lifetime, and hence the two would have been obvious to combine in order to improve the lifetime of such devices.

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With regard to claim 9,

Arnold et al. disclose the device as claimed in claim 1, where the at least one picture element is arranged to provide illumination.

With regard to claim 10,

Arnold et al. disclose the device as claimed in claim 1, where the at least one picture element is arranged in a matrix configuration in a colour display unit.

### ***Conclusion***

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

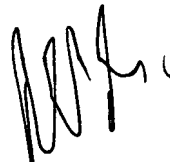
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher M. Raabe whose telephone number is 571-272-8434. The examiner can normally be reached on m-f 7am-3:30pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel can be reached on 571-272-2457. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

CR



**NIMESHKUMAR D. PATEL**  
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